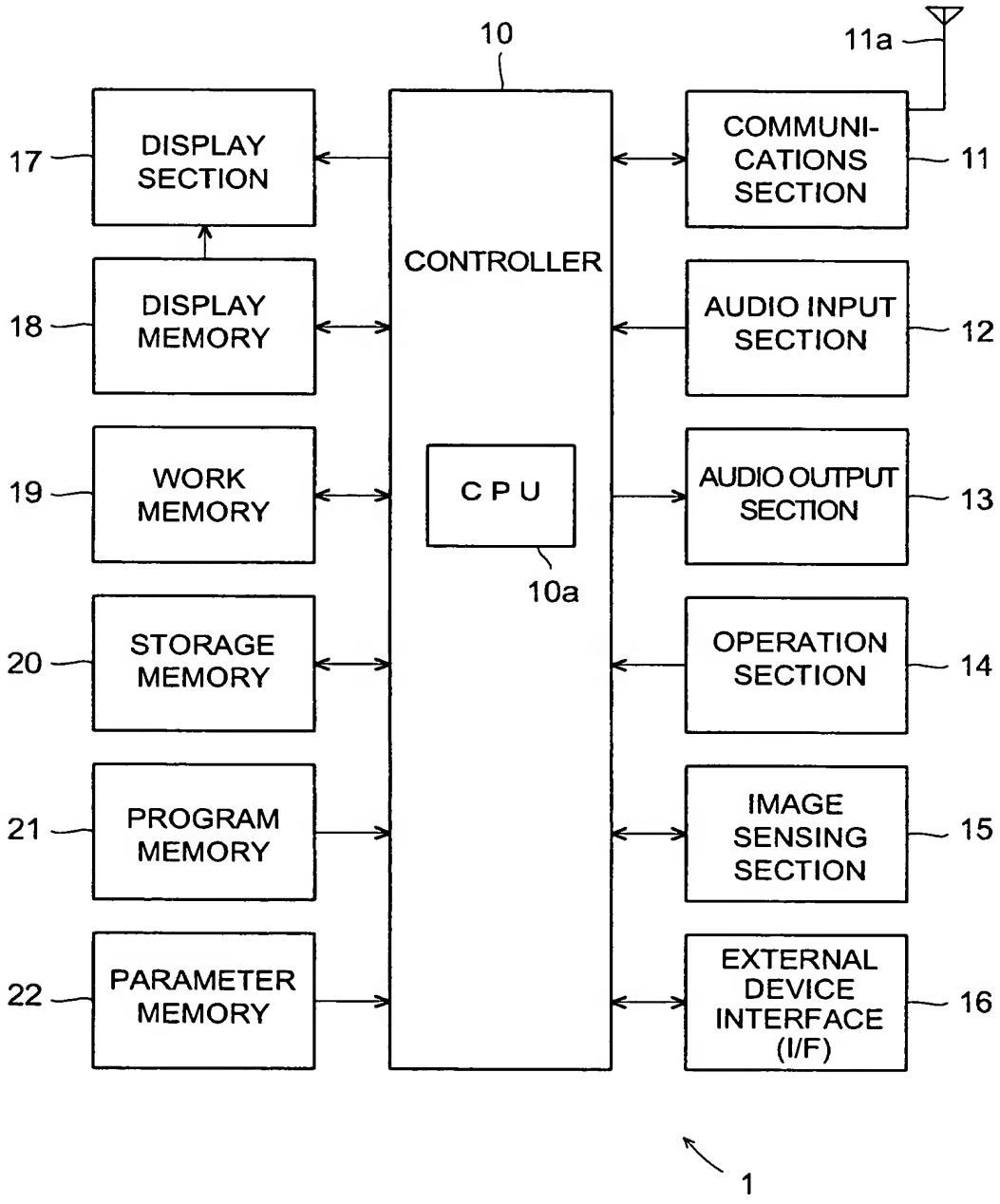
FIG. 1


10
11a
17
DISPLAY SECTION
CONTROLLER
COMMUNI-CATIONS SECTION
11
18
DISPLAY MEMORY
AUDIO INPUT SECTION
12
19
WORK MEMORY
C P U
AUDIO OUTPUT SECTION
13
10a
20
STORAGE MEMORY
OPERATION SECTION
14
21
PROGRAM MEMORY
IMAGE SENSING SECTION
15
22
PARAMETER MEMORY
EXTERNAL DEVICE INTERFACE (I/F)
16
1

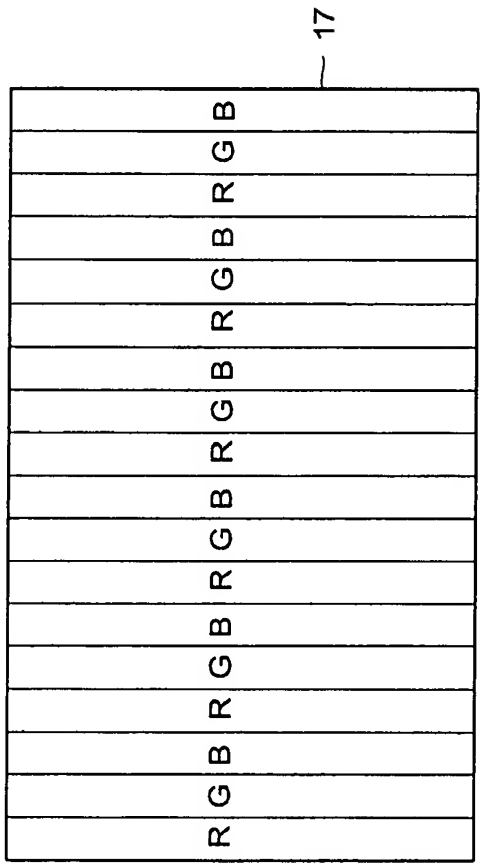

17
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R

FIG. 2A

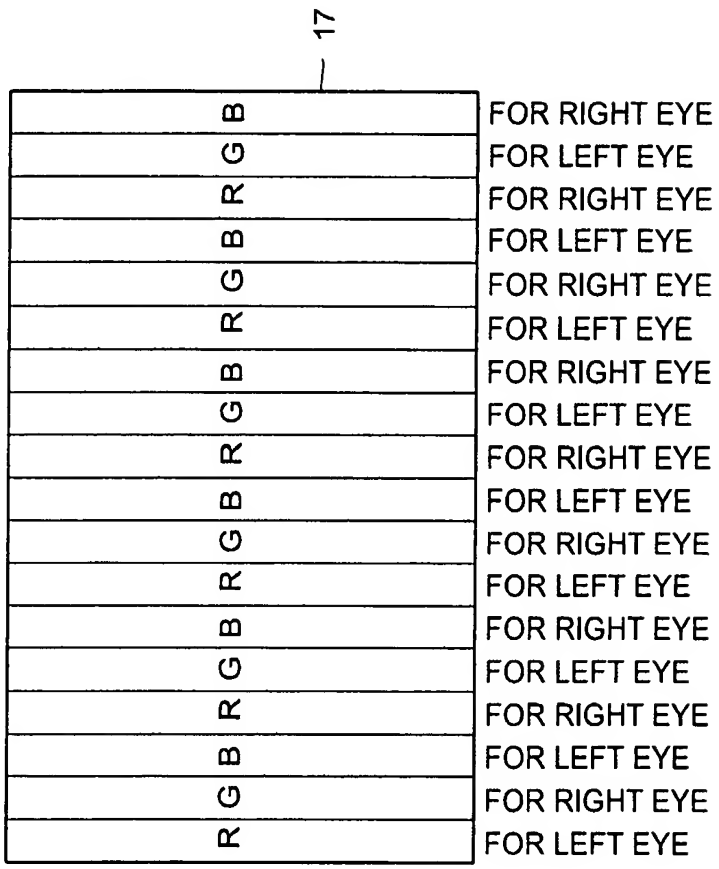

17
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
B
G
R
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE
FOR RIGHT EYE
FOR LEFT EYE

FIG. 2B

FIG. 3

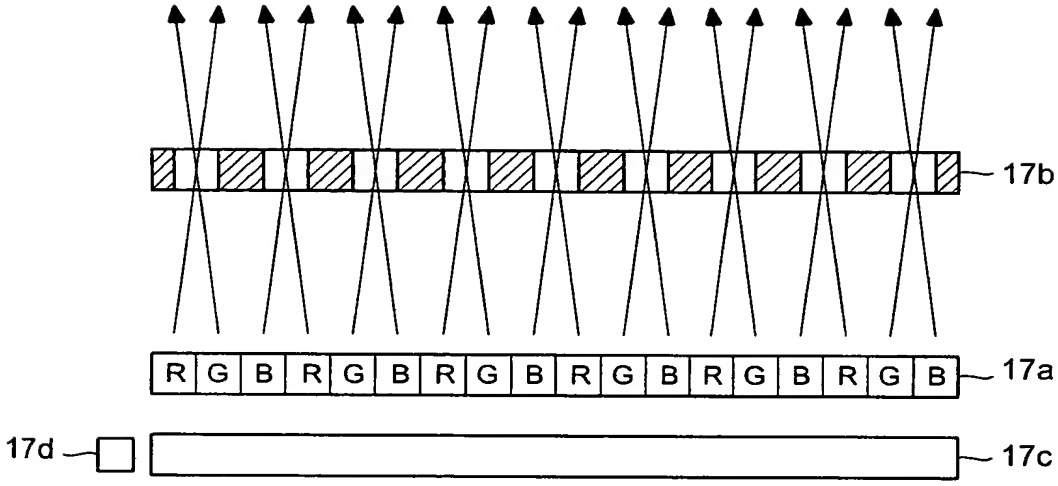


FIG. 4

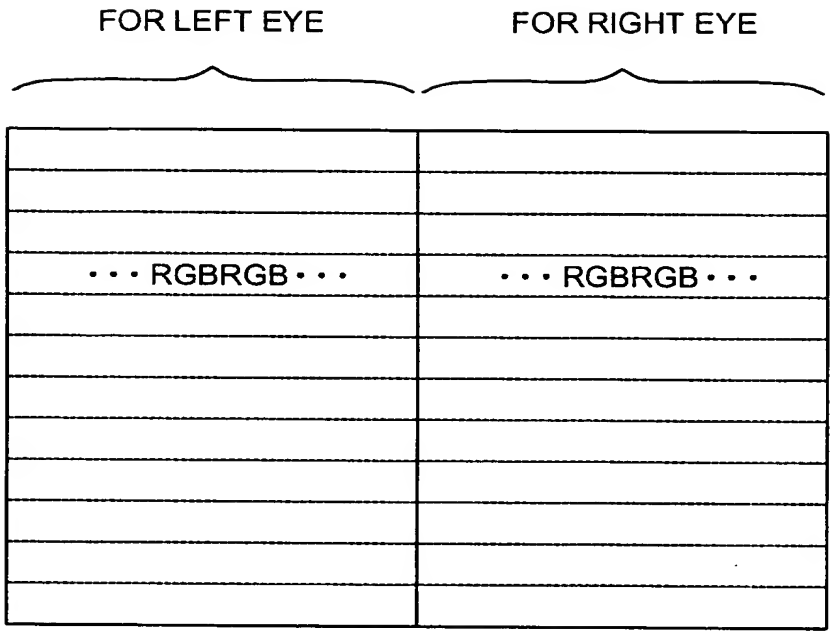


FIG. 5A

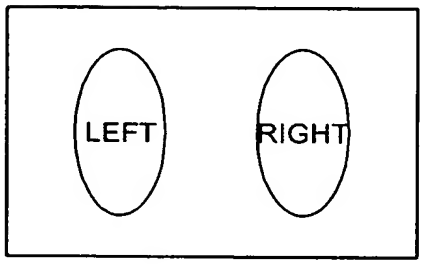


FIG. 5B

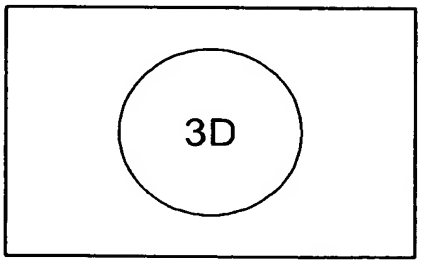
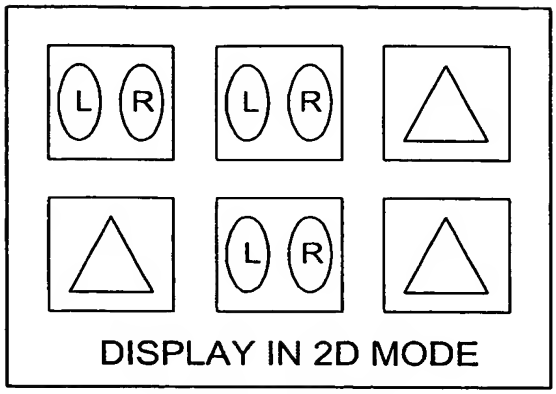
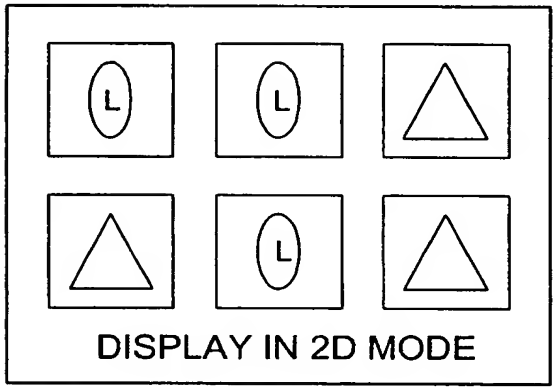


FIG. 6A



L: LEFT R: RIGHT

FIG. 6B



L: LEFT

FIG. 6C

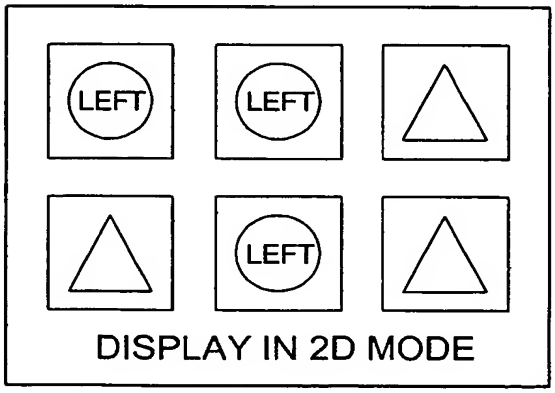


FIG. 6D

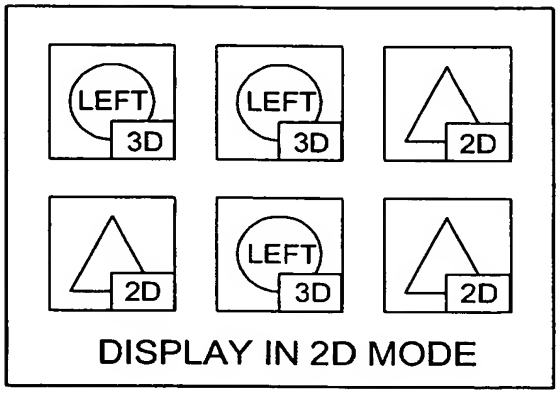


FIG. 6E

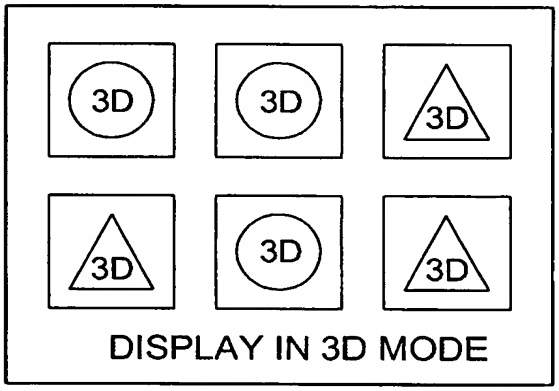


FIG. 7

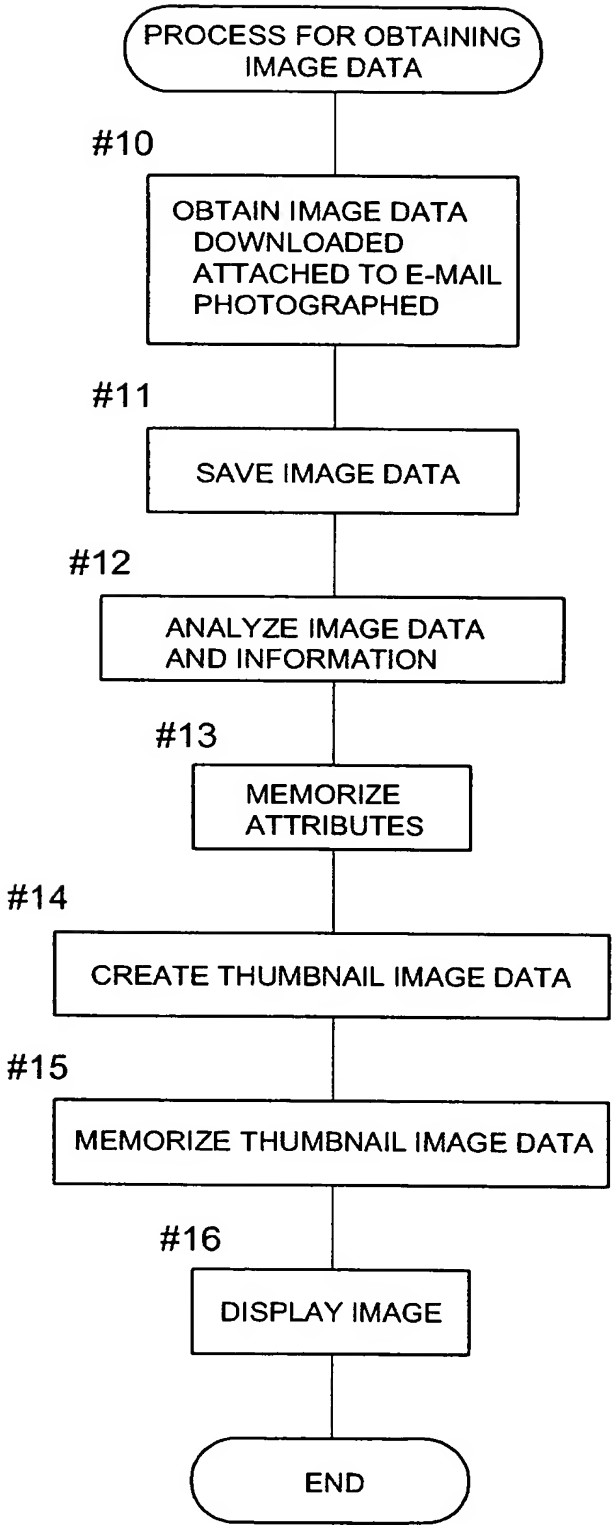

PROCESS FOR OBTAINING IMAGE DATA
#10
OBTAIN IMAGE DATA
DOWNLOADED
ATTACHED TO E-MAIL
PHOTOGRAPHED
#11
SAVE IMAGE DATA
#12
ANALYZE IMAGE DATA AND INFORMATION
#13
MEMORIZE ATTRIBUTES
#14
CREATE THUMBNAIL IMAGE DATA
#15
MEMORIZE THUMBNAIL IMAGE DATA
#16
DISPLAY IMAGE
END

FIG. 8A

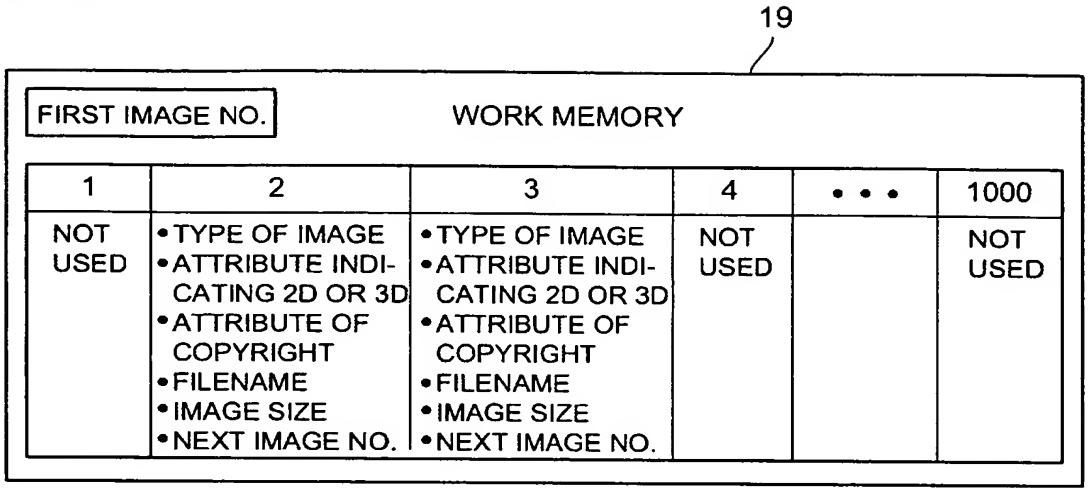

19
FIRST IMAGE NO.
WORK MEMORY
1
2
3
4
• • •
1000
NOT USED
•TYPE OF IMAGE
•ATTRIBUTE INDICATING 2D OR 3D
•ATTRIBUTE OF COPYRIGHT
•FILENAME
•IMAGE SIZE
•NEXT IMAGE NO.
•TYPE OF IMAGE
•ATTRIBUTE INDICATING 2D OR 3D
•ATTRIBUTE OF COPYRIGHT
•FILENAME
•IMAGE SIZE
•NEXT IMAGE NO.
NOT USED
NOT USED

FIG. 8B

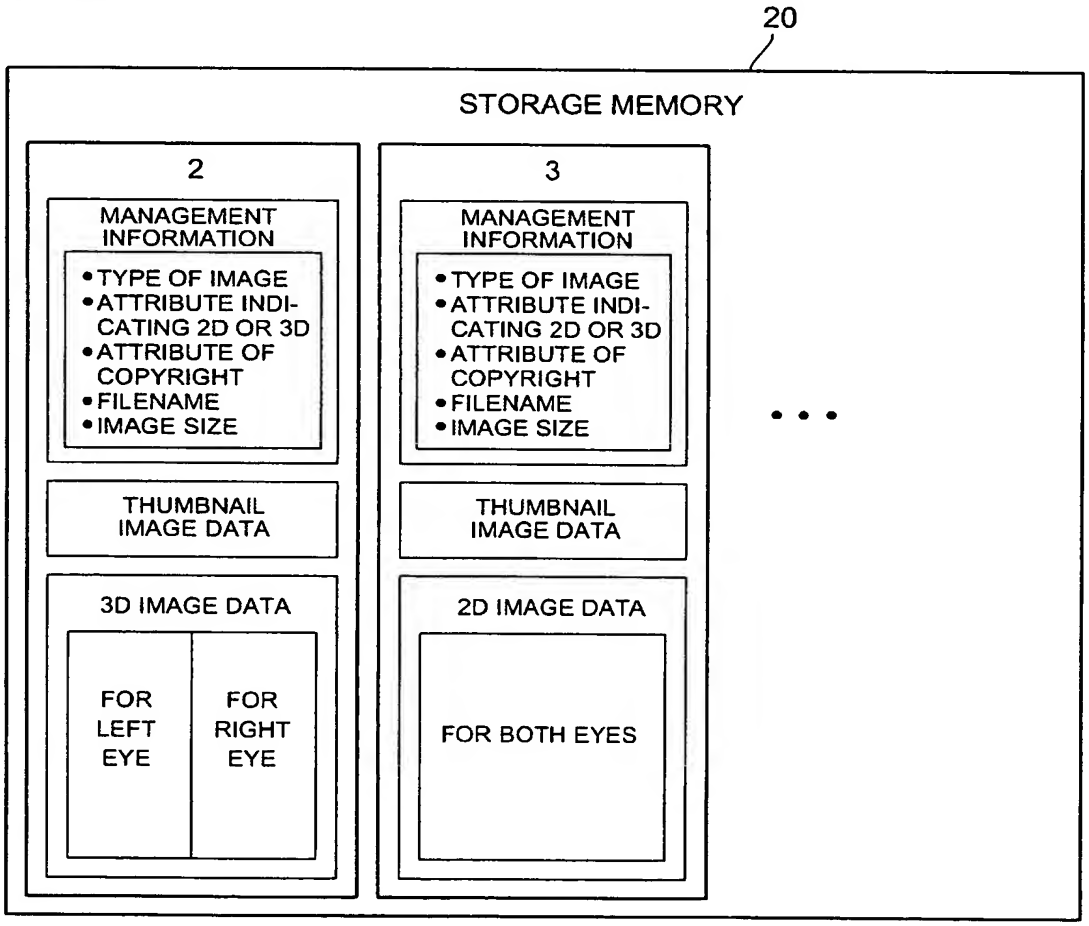

20
STORAGE MEMORY
2
MANAGEMENT INFORMATION
•TYPE OF IMAGE
•ATTRIBUTE INDICATING 2D OR 3D
•ATTRIBUTE OF COPYRIGHT
•FILENAME
•IMAGE SIZE
THUMBNAIL IMAGE DATA
3D IMAGE DATA
FOR LEFT EYE
FOR RIGHT EYE
3
MANAGEMENT INFORMATION
•TYPE OF IMAGE
•ATTRIBUTE INDICATING 2D OR 3D
•ATTRIBUTE OF COPYRIGHT
•FILENAME
•IMAGE SIZE
THUMBNAIL IMAGE DATA
2D IMAGE DATA
FOR BOTH EYES
• • •

FIG. 9

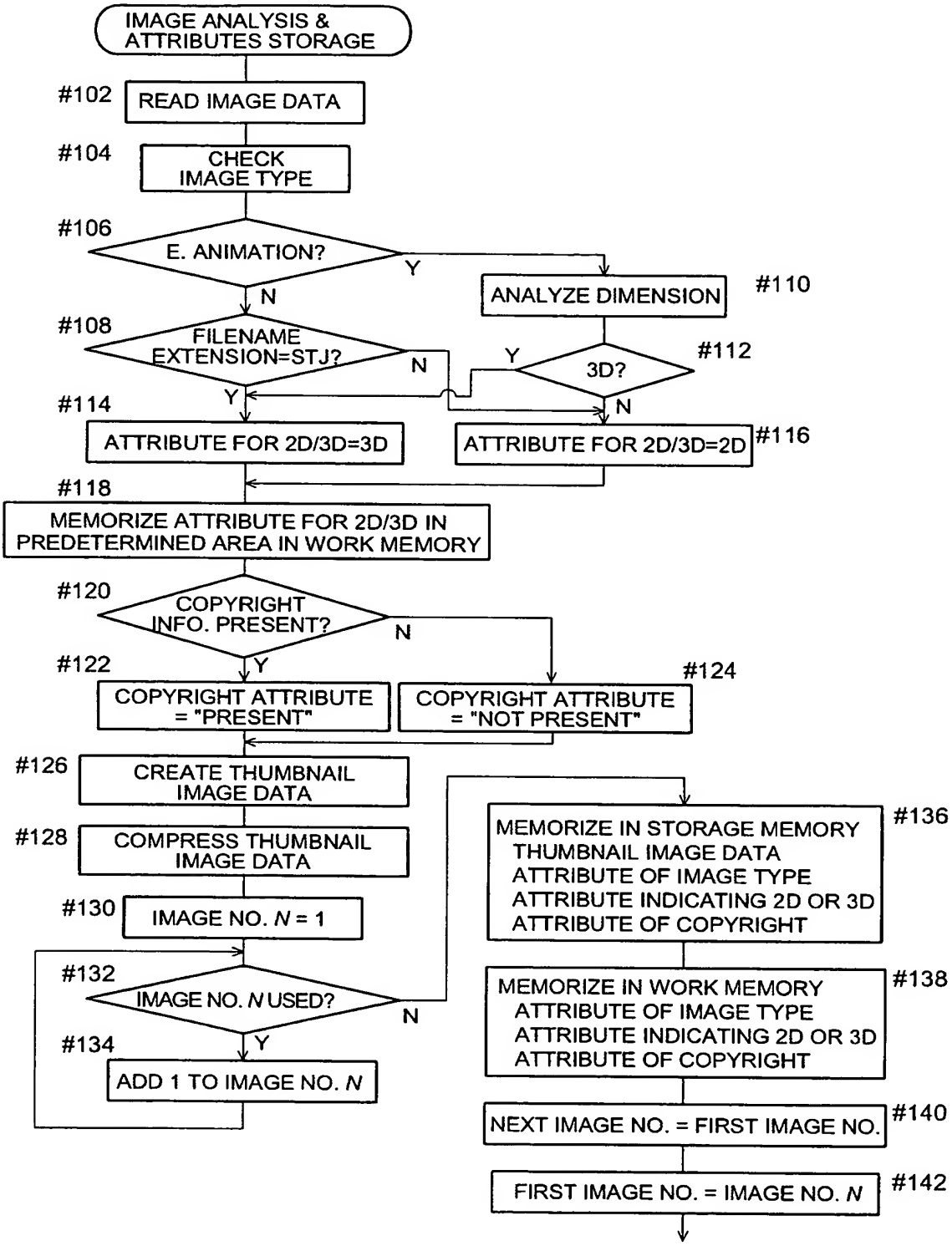


IMAGE ANALYSIS & ATTRIBUTES STORAGE
#102
READ IMAGE DATA
#104
CHECK IMAGE TYPE
#106
E. ANIMATION?
Y
N
#110
ANALYZE DIMENSION
#108
FILENAME EXTENSION=STJ?
N
Y
#112
3D?
Y
N
#114
ATTRIBUTE FOR 2D/3D=3D
ATTRIBUTE FOR 2D/3D=2D
#116
#118
MEMORIZE ATTRIBUTE FOR 2D/3D IN PREDETERMINED AREA IN WORK MEMORY
#120
COPYRIGHT INFO. PRESENT?
N
Y
#122
#124
COPYRIGHT ATTRIBUTE = "PRESENT"
COPYRIGHT ATTRIBUTE = "NOT PRESENT"
#126
CREATE THUMBNAIL IMAGE DATA
#128
COMPRESS THUMBNAIL IMAGE DATA
#130
IMAGE NO. N = 1
#132
IMAGE NO. N USED?
N
Y
#134
ADD 1 TO IMAGE NO. N
#136
MEMORIZE IN STORAGE MEMORY
THUMBNAIL IMAGE DATA
ATTRIBUTE OF IMAGE TYPE
ATTRIBUTE INDICATING 2D OR 3D
ATTRIBUTE OF COPYRIGHT
#138
MEMORIZE IN WORK MEMORY
ATTRIBUTE OF IMAGE TYPE
ATTRIBUTE INDICATING 2D OR 3D
ATTRIBUTE OF COPYRIGHT
#140
NEXT IMAGE NO. = FIRST IMAGE NO.
#142
FIRST IMAGE NO. = IMAGE NO. N

FIG. 10

SYMBOL	CODE WORD ASSIGNMENT	FUNCTIONS
SOI	0 x FFD8	START OF IMAGE
DHT	0 x FFC4	DEFINE HUFFMAN TABLE
DQT	0 x FFDB	DEFINE QUANTIZATION TABLE
APP0	0 x FFE0	DEFINE APPLICATION JFIF FORMAT
SOF0	0 x FFC0	BASIC FUNCTION DCT
SOS	0 x FFDA	START OF SCAN
EOI	0 x FFD9	END OF IMAGE

FIG. 11

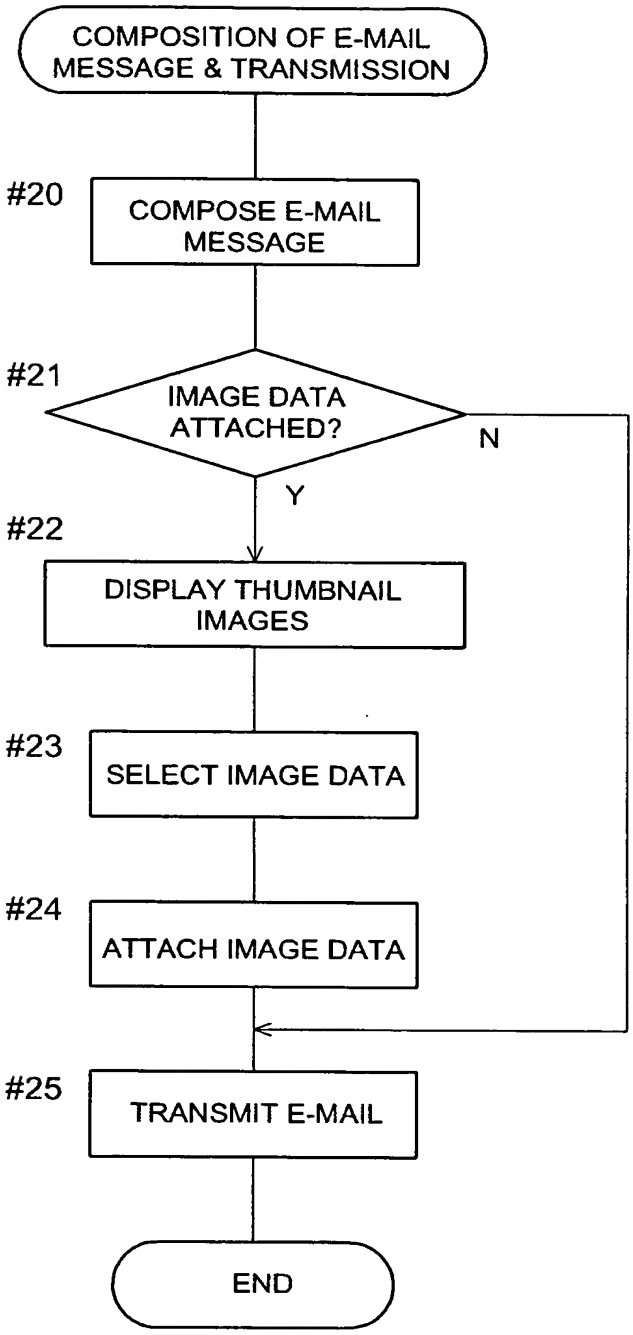

COMPOSITION OF E-MAIL MESSAGE & TRANSMISSION
#20
COMPOSE E-MAIL MESSAGE
#21
IMAGE DATA ATTACHED?
N
Y
#22
DISPLAY THUMBNAIL IMAGES
#23
SELECT IMAGE DATA
#24
ATTACH IMAGE DATA
#25
TRANSMIT E-MAIL
END

FIG. 12

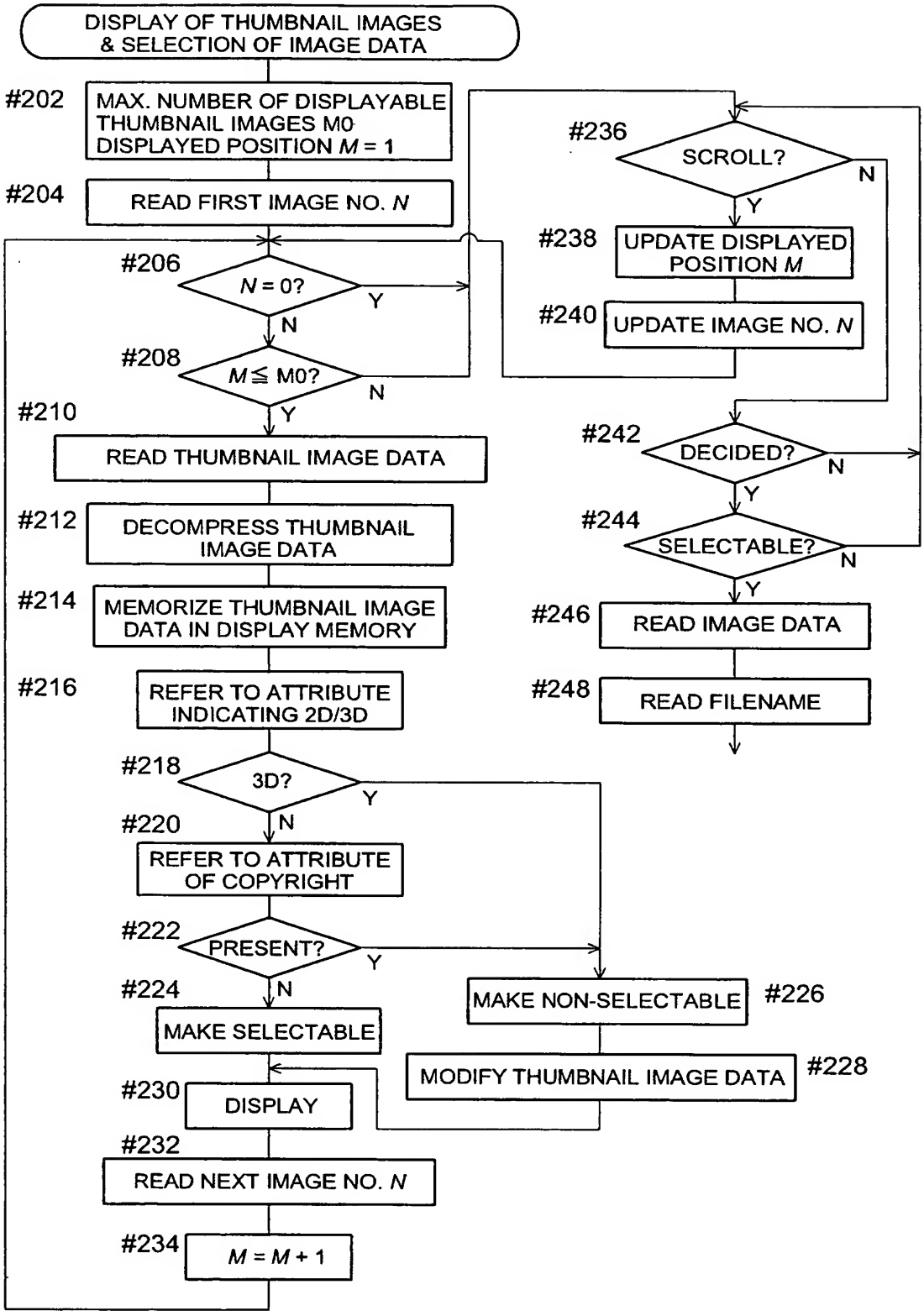

DISPLAY OF THUMBNAIL IMAGES & SELECTION OF IMAGE DATA
#202
MAX. NUMBER OF DISPLAYABLE THUMBNAIL IMAGES M0 DISPLAYED POSITION M = 1
#204
READ FIRST IMAGE NO. N
#206
N = 0?
Y
N
#208
M ≦ M0?
N
Y
#210
READ THUMBNAIL IMAGE DATA
#212
DECOMPRESS THUMBNAIL IMAGE DATA
#214
MEMORIZE THUMBNAIL IMAGE DATA IN DISPLAY MEMORY
#216
REFER TO ATTRIBUTE INDICATING 2D/3D
#218
3D?
Y
N
#220
REFER TO ATTRIBUTE OF COPYRIGHT
#222
PRESENT?
Y
N
#224
MAKE SELECTABLE
#226
MAKE NON-SELECTABLE
#228
MODIFY THUMBNAIL IMAGE DATA
#230
DISPLAY
#232
READ NEXT IMAGE NO. N
#234
M = M + 1
#236
SCROLL?
N
Y
#238
UPDATE DISPLAYED POSITION M
#240
UPDATE IMAGE NO. N
#242
DECIDED?
N
Y
#244
SELECTABLE?
N
Y
#246
READ IMAGE DATA
#248
READ FILENAME

FIG. 13A

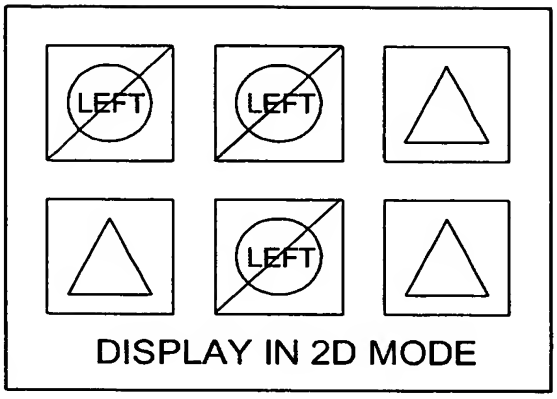


FIG. 13B

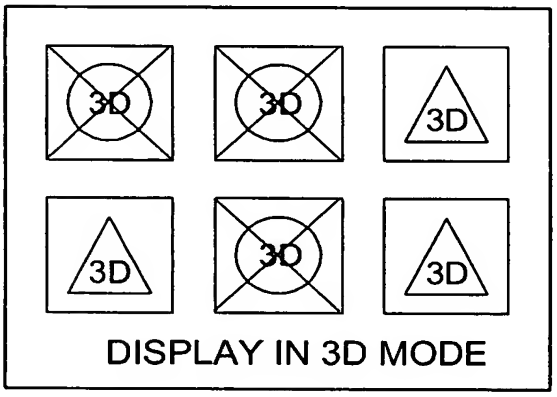


FIG. 14

			WHEN PRODUCING IMAGE	WHEN STORING IN MEMORY			WHEN ATTACHING TO E-MAIL	
IMAGE TYPE	EXTENSION	ACQUISITION METHOD	COPYRIGHT INFORMATION	COPYRIGHT ATTRIBUTE	2D/3D ATTRIBUTE	IMAGE TYPE	ATTACHMENT	JUDGMENT CRITERIA
JPEG (2D)	JPG	INTERNET	YES	YES	2D	JPEG	NOT ALLOWED	COPYRIGHT ATTRIBUTE
		SELF-MADE (PHOTOGRAPHED)	NO	NO	2D	JPEG	ALLOWED	COPYRIGHT ATTRIBUTE AND 2D ATTRIBUTE
JPEG (3D)	STJ	INTERNET	YES	YES	3D	JPEG	NOT ALLOWED	COPYRIGHT ATTRIBUTE OR 3D ATTRIBUTE
		SELF-MADE (COMPUTATION)	NO	NO	3D	JPEG	NOT ALLOWED	3D ATTRIBUTE
E. ANIMATION (2D)	NVA	INTERNET	YES	YES	2D	NVA	NOT ALLOWED	COPYRIGHT ATTRIBUTE OR IMAGE TYPE
		SELF-MADE (2D FRAMES)	NO	NO	2D	NVA	NOT ALLOWED	COPYRIGHT ATTRIBUTE OR IMAGE TYPE
E. ANIMATION (3D)	NVA	INTERNET	YES	YES	3D	NVA	NOT ALLOWED	COPYRIGHT ATTRIBUTE OR IMAGE TYPE
		SELF-MADE (3D FRAMES)	NO	NO	3D	NVA	NOT ALLOWED	COPYRIGHT ATTRIBUTE OR IMAGE TYPE